	Scenario 1 - JSON Parser			
	Step	**Action**	**Expected result**	**Does the actual result match the expected one?**
	1	Open from menu Parser -> Create GeoJSON File.	A dialog box is displayed with the option to insert files with edges (networks) and vertices (intersections) and file details to process them.	Yes
	2	Click on button Upload file with graph edges.	File selection displayed.	Yes
	3	Select file with graph edges.	After selecting a file and confirming the selection, the first 20 lines of the file are displayed in the text field below the button.	Yes
	4	Fill in the details about the file.	The file details are filled in.	Yes
	5	Click on button Upload file with node coordinates.	File selection displayed.	Yes
	6	Select file with graph vertices.	After selecting a file and confirming the selection, the first 20 lines of the file are displayed in the text field below the button.	Yes
	7	Fill in the details about the file.	The file details are filled in.	Yes
	8	Click on button Create GeoJSON File!	A new file with the extension .geojson was created in the folder with the application, which corresponds to the union of the two selected files.	Yes
	9	Repeat this scenario with different file sets.	After repeating the scenario with at least three different file sets, the result is correct.	Yes

Scenario 2 - Generating a graph

Step	Action	Expected result	Does the actual result match the expected one?
1	Open from menu Graph -> New -> Generate Graph.	A dialog box is displayed with the required details to be filled.	Yes
2	Enter the following values: Number of vertices horizontally: 20, Number of vertices vertically: 10, Length: 5	The details are entered.	Yes
3	Click on button Create graph!.	After pressing the button, a graph appears on the left side of the UI, which is regular grid with 20 vertices horizontally, with 10 vertices vertically, and whose edges have length 5.	Yes
4	Repeat this scenario with different values.	After repeating the scenario with at least three different sets of values, the result is correct.	Yes

Scenario 3 - Inserting a graph

Step	Action	Expected result	Does the actual result match the expected one?
1	Open from menu Graph -> New -> Insert Graph.	File selection displayed.	Yes
2	Select the GeoJSON file with a graph.	After selecting a file and confirming the selection, a graph corresponding to the graph written in the file will appear on the left side of the UI.	Yes
3	Repeat this scenario with different files.	After repeating the scenario with at least three different files, the result is correct.	Yes

	Scenario 4 - Testing the functionality of the implementation of selected algorithms			
	Step	**Action**	**Expected result**	**Does the actual result match the expected one?**
	1	Insert any graph into the application and set the number of required parts in the right part.	A graph appears on the left side of the UI and the spinner has a set number of parts.	Yes
	2	Set the parameters of the tested algorithm using the Setting button.	The parameters have been set.	Yes
	3	Click on button Calculate u testovaného algoritmu.	In the text box called Progress, information is displayed that the division is in progress.	Yes
	4	Check if the division is complete.	In the text box called Progress, information is displayed that the division is complete.	Yes
	5	Open the division statistics using the Show Statistics button and check the displayed values.	A dialog box is displayed with division statistical values at least for the division just performed.	Yes
	6	Check if you have selected colors for the set number of parts and click on the radio button with the tested algorithm for visualizing the division.	In the left part of the window, the graph is colored according to the resulting division using the selected colors.	Yes
	7	Check if the shown division is what you expected.	The division of the graph corresponds to the nature of the used division algorithm.	Yes
	8	Repeat this scenario with different graphs, partitioning algorithms, and numbers of parts.	After repeating the scenario with all available partitioning algorithms, at least three different graphs, and at least three different numbers of parts, the result is correct.	Yes
	Scenario 5 - Export graph to GeoJSON			

	Step	Action	Expected result	Does the actual result match the expected one?
	1	According to scenario 2 or 3, create a graph and then open from the menu Graph -> Save -> Export Graph to GeoJSON.	Messages are displayed in the text box on the right. A new file called graph_ddMMyyyyHHmmss.geojson is created in the application folder.	Yes
	2	Repeat this scenario with different graphs.	After repeating the scenario with at least three different graphs, the result is correct.	Yes

Scenario 6 - Export graph parts to GeoJSON files

	Step	Action	Expected result	Does the actual result match the expected one?
	1	According to scenario 10, create a graph partition and then open Graph -> Save -> Export Graph Partition to GeoJSON from the menu.	Messages are displayed in the text box on the right. New files named graphddMMyyyyHHmmss_0_part number. geojson are created in the folder with the application.	Yes
	2	Repeat this scenario with different files.	After repeating the scenario with at least three different graphs, the result is correct.	Yes

Scenario 7 - Closing the application

	Step	Action	Expected result	Does the actual result match the expected one?

	1	Open from menu Graph -> Exit.	The application is closed.	Yes
	Scenario 8 - Displaying the manual			
	Step	**Action**	**Expected result**	**Does the actual result match the expected one?**
	1	Open from menu Help -> Manual.	User documentation displayed.	Yes
	Scenario 9 - Displaying basic information about the application			
	Step	**Action**	**Expected result**	**Does the actual result match the expected one?**
	1	Open from menu Help -> About.	Basic information displayed.	Yes
	Scenario 10 - Graph Division			

	Step	Action	Expected result	Does the actual result match the expected one?
	1	Before opening the application, make sure that you also have a lib folder in the application folder that contains the JAR files with the partitioning algorithms you want to test.	Everything looks good.	Yes
	2	After opening the application, check that the contents of the radio buttons on the right side of the window match the contents of your lib folder.	Everything fits.	Yes
	3	Insert or generate a graph according to scenario 2 or 3.	A graph appears on the left side of the UI.	Yes
	4	Try zooming in and out of the graph using the -5 and +5 buttons on the top right.	The graph reacts to button presses and changes its size.	Yes
	5	Try zooming in and out of the graph using the text box and the Zoom button.	The graph reacts to the value of the text field and the button press and changes its size.	Yes
	6	Set the required number of parts using the Number of parts spinner.	The number of parts is set to 2 or more.	Yes
	7	Click on button Pick colors.	A color selection dialog for each part of the graph is displayed.	Yes
	8	Choose a different color for each part of the graph.	Colors selected.	Yes
	9	For each algorithm in the radio button, there should be two buttons: Setting and Calculate. Set the parameters for each algorithm using the Setting button.	Any parameters set.	Yes
	10	Choose an algorithm.	In the text box below, there is information that no graph partitioning is available yet.	Yes
	11	Click the Calculate button for any algorithm.	Progress information appears in the text box.	Yes
	12	Check that the last statement in the text box indicates the end of the division and select the algorithm according to which the graph was divided.	A divided graph with colored parts appeared on the left side of the application.	Yes
	13	Choose some other algorithm.	In the text box below, there is information that no graph partitioning is available yet. A non-partitioned graph is rendered.	Yes

	14	Click on button Recalculate.	Information about the progress of division by all available algorithms appears in the text field.	Yes
	15	Select all algorithms one by one and check the graph partitioning performed.	All algorithms have their graph partitioning.	Yes
	16	Repeat this scenario for different graphs and part counts.	After repeating the scenario with at least three different graphs and at least three different numbers of parts, the results were correct.	Yes

Scenario 11 - Testing

Step	Action	Expected result	Does the actual result match the expected one?
1	Insert any graph into the application and set the number of required parts in the right part.	A graph appears on the left side of the UI and the spinner has a set number of parts.	Yes
2	Open from menu Testing -> Test.	The testing dialog box with test settings is displayed.	Yes
3	Set the number of test cycles.	The spinner named Number of rounds has the desired number of repetitions set. Within one iteration, division by all available algorithms is always performed and the resulting division is written if required.	Yes
4	Choose if you wish to record the test results to a CSV file.	Checked or unchecked checkbox Export statistics to CSV file.	Yes
5	Choose if you wish to record the resulting split into files.	Checked or unchecked checkbox Export resulting partitions to files for each graph component of each algorithm.	Yes
6	Click on button Start Testing.	Start of testing. The text box below begins to fill in information about the testing.	Yes
7	Check the information text box to see if the testing has finished. If any checkbox was checked then check the application folder if all files were generated correctly.	Everything went well, the testing was completed and the required files were created.	Yes
8	Repeat this scenario for different combinations of graph, number of parts, and number of iterations.	After repeating the scenario with at least three different graphs and at least three different numbers of parts, the results were correct.	Yes